

Comment (Case 3688) – On the proposed suppression of CHARINIDAE Gray, 1849 (Reptilia, Squamata, Serpentes): a counter-application
(see BZN 73(1): 25–29 [Case]; 73(2–4): 122–123)

R. Alexander Pyron

Dept. Of Biological Sciences, The George Washington University 2029 G St. NW, Washington DC 20052, U.S.A. (e-mail: rpyron@colubroid.org)

<http://zoobank.org/urn:lsid:zoobank.org:pub:6D091F7A-478B-40AA-B2A2-B492F7B94CFD>

In the recently published Case 3688, Quintero & Shear (2016) outline a proposal for suppressing CHARINIDAE Gray, 1849 in favor of CHARINIDAE Quintero, 1986. This invokes the Commission's plenary power, as Reversal of Precedence under Article 23.9.1.1 does not apply. The authors instead invoked Article 23.9.3, and petitioned for a special ruling from the Commission, arguing for stability. To give a more complete picture of the nomenclatural history, I provide the following information:

1. Gray (1849, p. 84) placed *Charina* Gray, 1849 in a family-level group he named CHARININA.

2. Cope (1886a, p. 294) later described a family CHARINIDAE Cope, 1886, containing only *Charina* Gray, 1849. Cope then used this name in numerous subsequent publications, including Cope (1886b, p. 480, 1889, p. 869, 1892, p. 592, 1895, p. 199, 1900, p. 727).

3. Boulenger (1887, p. 16) made note of Cope's new family in the *Zoological Record*. Boulenger later listed CHARININA Gray, 1849 in the synonymy of BOINAE (Boulenger, 1893, p. 93), while also listing CHARINIDAE Cope, 1886 in the synonymy of BOIDAE (Boulenger, 1893, p. 71). Similarly, Boettger (1887) discussed and described Cope's (1886b) classification, listing CHARINIDAE as a separate family citing Cope (1886a) and giving characters for the group (Boettger, 1887, pp. 186, 187, 193). Boettger (1890) cited Cope's (1889) classification again, also listing CHARINIDAE as a separate family (Boettger, 1890, p. 198).

4. Whitney & Smith (1914, p. 930) listed a dictionary entry for *Charina* Gray, 1849, and subsequent entries referring to charinid (snakes of the family CHARINIDAE), CHARINIDAE (the family containing *Charina*), CHARININA (a subfamily containing *Charina*), and charinoid (resembling CHARINIDAE).

5. Shufeldt (1903, p. 406) referred to CHARINIDAE in his description of California snakes. He did not cite a taxonomic authority, but referred to Cope elsewhere in the article. Noguchi (1909, p. 3) cited Cope's (1900) system of snake classification, listing CHARINIDAE as a separate family in a table. Gilmore (1938, p. 7) also cited Cope's (1900) system of snake classification, listing CHARINIDAE as a separate family in a sentence describing its characters. Von Ihering (1911, p. 289) cited Cope's (1895) classification and listed CHARINIDAE in a table, for his review of Brazilian snakes. Prado (1945, p. 61), in his review of Brazilian snakes, cited Cope's classification without a specific reference and provided characters for CHARINIDAE. Oguiura et al. (2009) used the names CHARININAE (Oguiura et al. 2009, p. 130) and CHARININI (Oguiura et al. 2009, p. 131) in passing, without citing a taxonomic authority.

6. Pyron et al. (2014) reinstated CHARINIDAE Gray, 1849 as the correct family-group nomen for the clade containing *Charina* Gray, 1849, discussed the history of Cope's junior objective synonym CHARINIDAE Cope, 1886, and noted the homonymy issue with CHARINIDAE Quintero, 1986.

7. The name CHARINIDAE Gray, 1849 has begun to be re-adopted by the herpetological community, particularly in regional checklists such as Ray & Ruback (2015, pp. 172, 174, 176), Solis *et al.* (2014, p. 133), Sunyer (2014, p. 193), and Abbas Rhadi et al. (2015, p. 149), and conservation assessments such as Johnson et al. (2015, pp. 27, 30, 33, 40, 86). Head (2015, pp. 3, 8, 9) also used CHARINIDAE and CHARININAE, citing usage as per Pyron et al. (2014), in his review of fossil snakes. Figueroa et al. (2016), in their systematic phylogenetic assessment and revision of Serpentes, also adopted CHARINIDAE, again citing Pyron et al. (2014) for usage. The Reptile Database has also now adopted CHARINIDAE Gray, 1849; this reference is the community standard for herpetology.

8. CHARINIDAE Gray, 1849 (= CHARININA Gray, 1849) is clearly an available and valid name. There is a strong historical tradition of usage for the junior objective synonym CHARINIDAE Cope, 1886, and a recent prevailing usage of CHARINIDAE Gray, 1849 in the herpetological community since the publication of Pyron et al. (2014). Thus, CHARINIDAE Gray, 1849 is not a nomen oblitum under Article 23.9.2, and its usage does not threaten the stability of serpent nomenclature.

9. Therefore, I suggest that CHARINIDAE Gray, 1849 should not be suppressed, but instead, the junior homonym CHARINIDAE Quintero, 1986 be replaced by an appropriately emended name such as CHARINUSIDAE.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that for the purposes of Article 29 of the Code:
 - (a) the stem of the generic name *Charinus* Simon, 1892 is *Charinus-*;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Charina* Gray, 1849 (gender: feminine), type species by monotypy *Tortrix bottae* Blainville, 1835;
 - (b) *Charinus* Simon, 1892 (gender: masculine), type species by original designation *Phrynus australianus* L. Koch, 1867;
- (3) to place on the Official List of Family Group Names in Zoology the following names:
 - (a) CHARINUSIDAE Quintero, 1986, type genus *Charinus* Simon, 1892, spelling emended by the ruling in (1)(a) above (Arachnida, Amblypygi);
 - (b) CHARINIDAE Gray, 1849, type genus *Charina* Gray, 1849 (Reptilia, Squamata).

References

- Abbas Rhadi, F., Rastergar-Pouyani, N., Karamiani, R. & Ghaleb Mohammed, R. 2015. Taxonomic status of sand boas of the genus *Eryx* (Daudin, 1803) (Serpentes: Boidae) in Bahr Al-Najaf depression, Al Najaf Province, Iraq. *Iranian Journal of Animal Biosystematics*, **11**(2): 149–156.
- Blainville, H.M.D. de. 1835. Description de quelques espèces de reptiles de la Californie, précédée de l'analyse d'un système generale d'herpétologie et d'amphibiologie. *Nouvelles Annales du Muséum National d'Histoire Naturelle de Paris* (3)**4**(3): 232–296, pls. 24–27.
- Boettger, O. 1887. Bericht über die Leistungen in der Herpetologie während des Jahres 1886. *Archiv für Naturgeschichte*, **53**(2): 137–236.

- Boettger, O.** 1890. Bericht über die Leistungen in der Herpetologie während des Jahres 1889. *Archiv für Naturgeschichte*, **56**(2): 159–274.
- Boulenger, G.A.** 1887. Reptilia and Batrachia (1886). *Zoological Record*, **23**: 1–24.
- Boulenger, G.A.** 1893. *Catalogue of Snakes in the British Museum. Vol. I.* 447 pp. British Museum of Natural History, London.
- Cope, E.D.** 1886a. Three problematical genera of Mexican boaeform snakes. *American Naturalist*, **20**: 293–294.
- Cope, E.D.** 1886b. An analytical table of the genera of snakes. *Proceedings of the American Philosophical Society*, **23**: 479–499.
- Cope, E.D.** 1889. Synopsis of the families of Vertebrata. *American Naturalist*, **23**: 849–877.
- Cope, E.D.** 1892. A critical review of the characters and variations of the snakes of North America. *Proceedings of the United States National Museum*, **14**(1891): 589–694.
- Cope, E.D.** 1895. The classification of the Ophidia. *Transactions of the American Philosophical Society*, **18**(2): 186–219.
- Cope, E.D.** 1900. The crocodylians, lizards, and snakes of North America. *Annual Reports of the United States National Museum*, **1898**: 153–1270.
- Figueroa, A., McKelvy, A.D., Grismer, L.L., Bell, C.D. & Lailvaux, S.P.** 2016 A species-level phylogeny of extant snakes with description of a new colubrid subfamily and genus. *PLoS ONE*, **11**(9): e0161070.
- Gray, J.E.** 1849. *Catalogue of the Specimens of Snakes in the Collection of the British Museum.* 125 pp. British Museum of Natural History, London.
- Head, J.J.** 2015. Fossil calibration dates for molecular phylogenetic analysis of snakes 1: Serpentes, Alethinophidia, Boidae, Pythonidae. *Palaeontologia Electronica*, **18**.1.6FC: 1–17.
- Ihering, R. von.** 1911. As cobras do Brasil. *Revistas do Museo Paulista* **8**:273–379.
- Johnson, J.D., Mata-Silva, V. & Wilson, L.D.** 2015. A conservation assessment of the Central American herpetofauna based on the EVS measure. *Amphibian and Reptile Conservation*, **9**(2): 4–94.
- Koch, L.** 1867. Beschreibung neuer Arachniden und Myriapoden. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien*, **17**: 215–217
- Noguchi, H.** 1909. Snake Venoms. An investigation of venomous snakes with special reference to the phenomena of their venoms. *Carnegie Institution of Washington*, **111**: 1–315.
- Oguiura, N., Ferrarezzi, H. & Batistic, R.F.** 2009. Cytogenetics and molecular data in snakes: a phylogenetic approach. *Cytogenetic and Genome Research*, **127**: 128–142.
- Prado, A.** 1945. *Serpentes do Brazil.* 134 pp. Biblioteca Agro-Peccuaria de ‘Sitios e Fazendas’, Sao Paulo,
- Quintero, D.** 1986. Revisión de la clasificación de amblypygidos pulvinados: creación de subórdenes, una nueva familia y un nuevo género con tres nuevas especies (Arachnida: Amblypygi). Pp. 203–212 in Eberhard, W.G., Lubin, Y.D. & Robinson, B.C. (Eds.), *Proceedings of the 9th International Congress of Arachnology (Panama 1983)*. Smithsonian Institution Press, Washington, D.C.
- Quintero A.D. & Shear, W.A.** 2016. Case 3688. Charinidae Gray, 1849 (Reptilia, Squamata, Serpentes): proposed suppression. *Bulletin of Zoological Nomenclature*, **73**(1): 25–29.
- Ray, J.M. & Ruback, P.** 2015. Updated checklists of snakes for the Provinces of Panamá and Panamá Oeste, Republic of Panama. *Mesoamerican Herpetology*, **2**: 168–188.
- Shufeldt, R.W.** 1903. California snakes. *Western Field: The Sportsman's Magazine of the West*, **2**(6): 406–409.
- Simon, E.** 1892. Arachnides. In Raffray, A., Bolivar, I. & Simon, E. (Eds.), *Etude sur les Arthropodes cavernicoles de île Luzon, Voyage de M.E. Simon aux îles Philippines (Mars et avril 1890)*. *Annales de la Société Entomologique de France*, **61**: 35–52.
- Solis, J.M, Wilson, L.D. & Townsend, J.H.** 2014. An updated list of the amphibians and reptiles of Honduras, with comments on their nomenclature. *Mesoamerican Herpetology*, **1**: 123–144.
- Sunyer, J.** 2014. An updated checklist of the amphibians and reptiles of Nicaragua. *Mesoamerican Herpetology*, **1**: 186–202.
- Uetz, P., Freed, P. & Jirí Hošek** (Eds.). 2016. The Reptile Database. <http://www.reptile-database.org> (Accessed 22 October 2016).
- Whitney, W.D. & Smith, B.E.** (Eds.). 1914. *The Century Dictionary Vol. II–C.* The Century Co., New York.